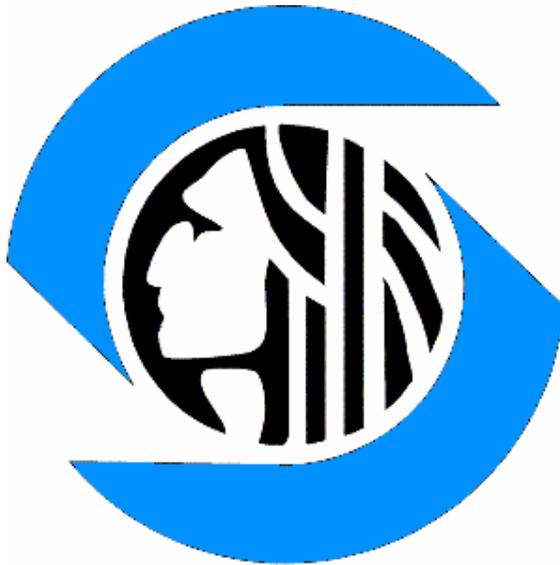


# SEATTLE CITY LIGHT

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## Wholesale Energy Risk Management Procedures Manual



**Version E6012908**

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## Introduction

This document, the Wholesale Energy Risk Management Procedures Manual (“Procedures”) contains the procedures established by the Risk Oversight Council that apply to the conduct of Seattle City Light’s wholesale energy risk management and wholesale marketing activities. The context, authority, and intent for them is established in Seattle City Light’s Wholesale Energy Risk Management Policy document (“Policy”) dated mm/dd/yy. Those charged with the operation, implementation, and oversight of City Light’s wholesale energy risk management function shall consider the Policy and Procedures as a single statement under which they will operate.

The following Exhibits deal with specific aspects of City Light’s wholesale energy marketing and risk management activities.

Abbreviations used throughout include:

ROC – Risk Oversight Council

ROD – Risk Oversight Division

PMD – Power Management Division

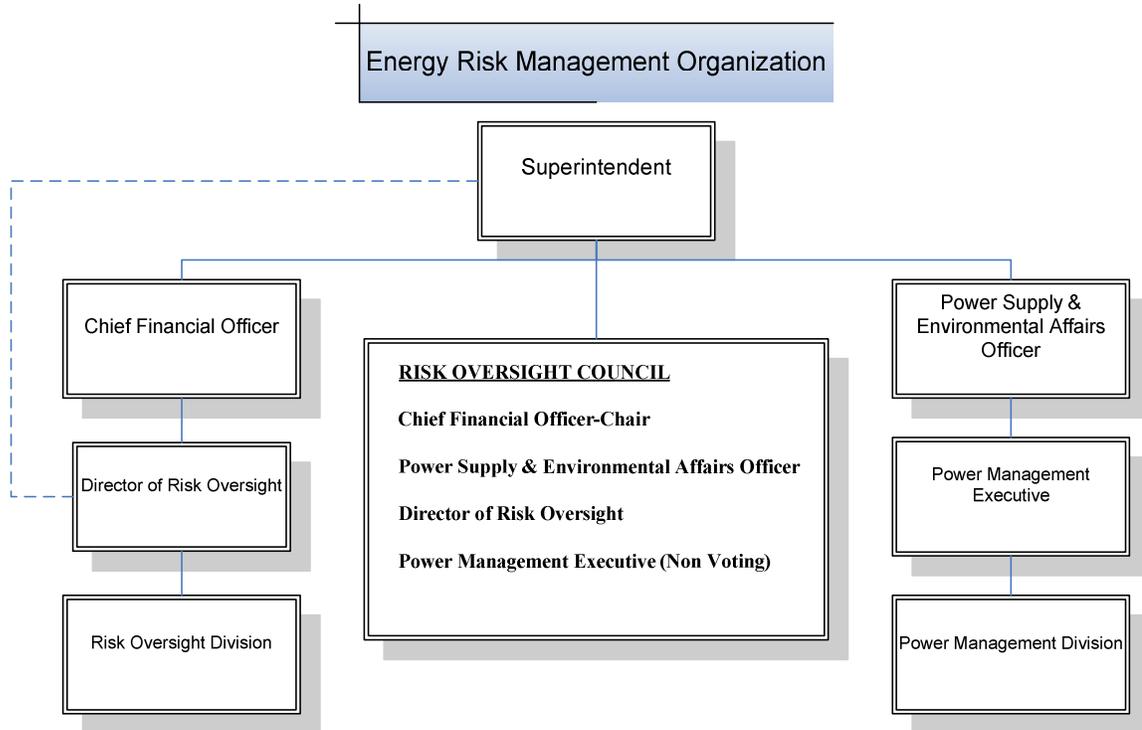
PME – Power Management Executive (head of the PMD)

CFO – Chief Financial Officer

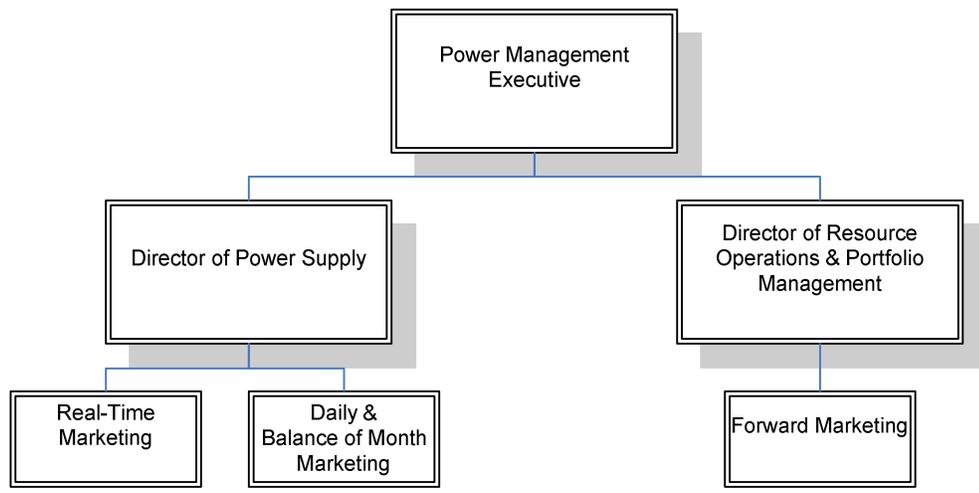
MtM – Mark to Market

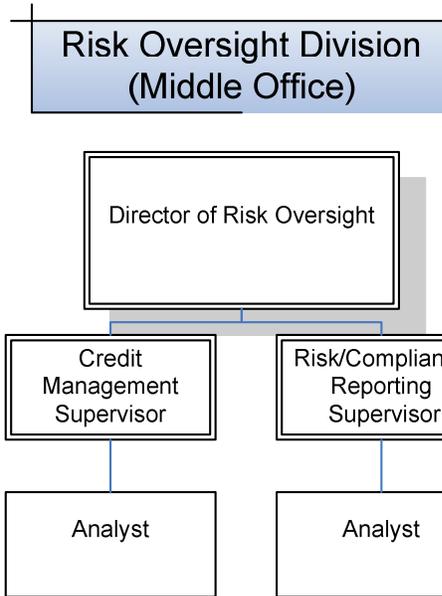
As used in this document, the term ‘in writing’ will include notification by email.

## Exhibit A Organization Charts

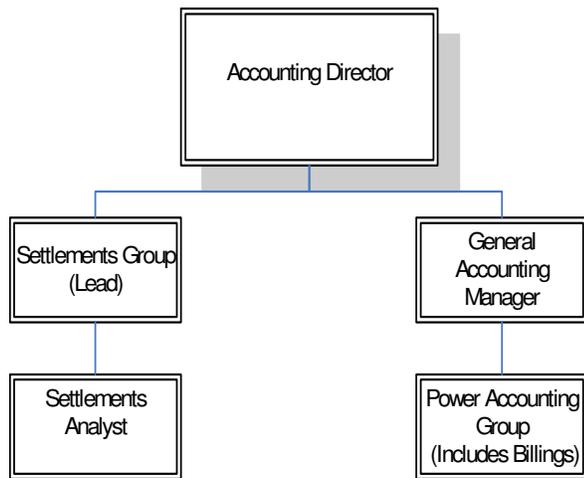


### Power Management Division (Front Office)





Back Office



## Exhibit B ROC Reports and Report Development

The Director of Risk Oversight will distribute the following reports to the members of the ROC and the Superintendent:

Report	Source	Frequency
Annual Net Wholesale Revenue Distribution	CFOM	W
Actual/Forecast Physical Position By Month	Sybase	W
Hedge Plan Status	Sybase	W
Counterparty Credit Exposure Metrics	Sybase	W
Market Price Update	RODDB	W
Actual & Average Cumulative Precipitation, Snow pack, and Reservoir Elevation Information	Various	W
5% Tail Risk Metric	CFOM	M
Policy Compliance	ROD	M

CFOM = Cash From Operations Model

RODDB = Risk Oversight Division Data Base

ROD = Risk Oversight Division    W = Weekly    M = Monthly

### RISK METRIC REPORTING AND ANALYSIS

#### **Tuesday AM**

New hydro forecasts available. Power Management uses forecasts from the Northwest River Forecast Center and 3Tier as inputs for the Resource Forecast Model.

#### **Wednesday AM**

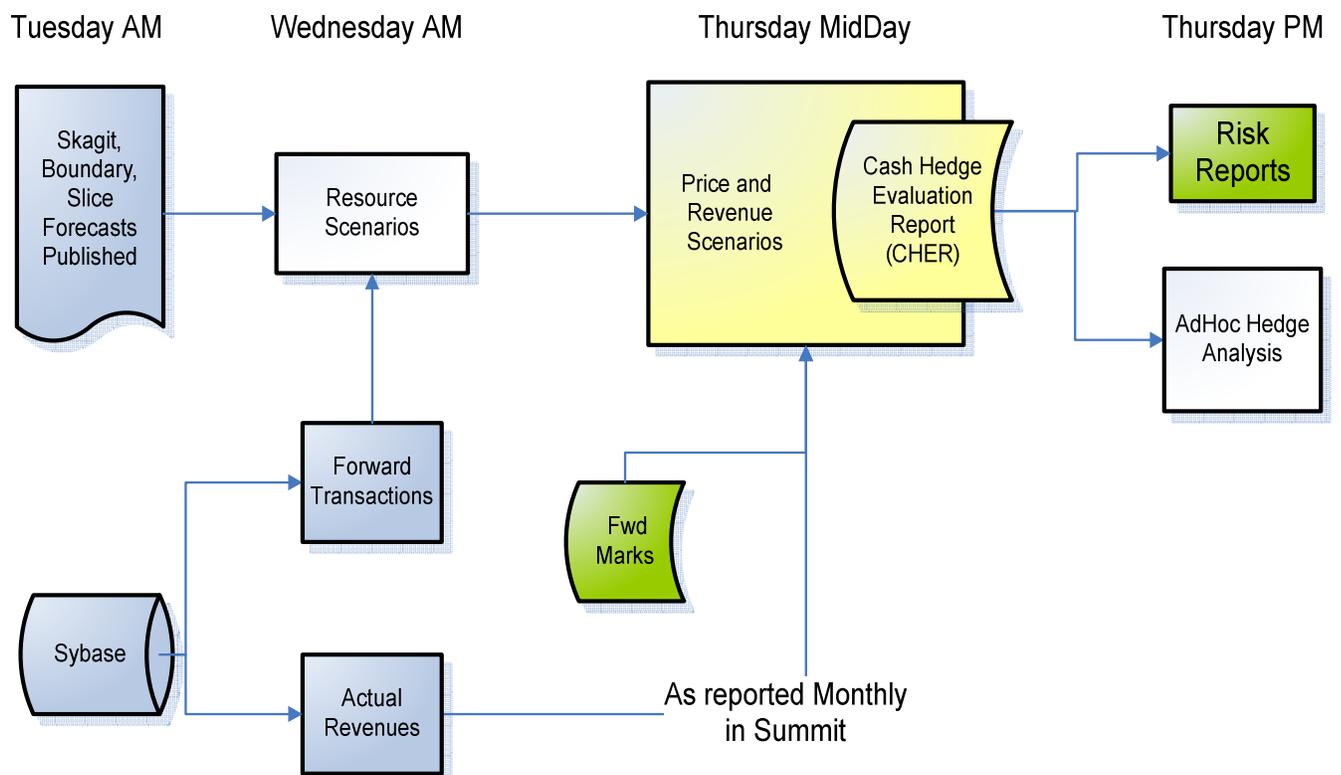
Resource forecast completed for current water year. For time periods where no forecasts have been published, historical data is used instead. Forecast and summary of forward transactions are transferred to Finance for input into the Cash From Operations Model.

**Thursday Mid-Day**

Current Forward Marks and resource forecast are input to Wholesale Revenue Model to produce price scenarios and populate the Cash Hedge Evaluation Report (CHER).

**Thursday PM**

CHER outputs are used to populate reports and hedge analysis tools used by the Risk Oversight and Power Management Divisions.



## **Exhibit C Authority to Transact**

Only personnel that are specifically named in a Delegation of Authority document, materially similar to the example below, may enter into Energy related transactions for City Light.

No person authorized to transact on behalf of City Light will trade on behalf of any other entity at any time while employed by City Light.

No person authorized to transact on behalf of City Light will enter into transactions that violate any rules promulgated by the Federal Energy Regulatory Commission.

As personnel changes dictate, the Delegation of Authority-Energy Transactions document will be amended in writing from time to time. It is the Power Marketing Executive's responsibility to ensure that only authorized traders enter into transactions for City Light.

**Delegation of Authority**  
**Energy Transactions**

Seattle Municipal Code (SMC) 21.49.130.B.2 authorizes the City Light Department to enter into contracts "...terminable on not more than (18) months' notice, providing for the acquisition, exchange or sale of energy on terms most favorable to the Department...". SMC 21.49.130.C further provides that the Department "may also enter into contracts of a general nature relating to the utility system."

As the Superintendent of the City Light Department of the City of Seattle, I hereby delegate the authority to execute agreements that are necessary or beneficial to performance of the functions and responsibilities of the Power Management Division. This authority extends to any form of agreement or amendment thereof, consistent with the SMC 21.49.130 to the following:

Name	Working Title	Transaction Limit
	Forward Marketer	Delivery term from 1 to 18 months
	Forward Marketer	Delivery term from 1 to 18 months
	Daily Marketing	Delivery term of not less than one day ahead and not greater than balance of month
	Daily Marketing	Delivery term of not less than one day ahead and not greater than balance of month
	Daily Marketing	Delivery term of not less than one day ahead and not greater than balance of month
	Real-Time Operations	Delivery term of 1 to 24 hrs
	Real-Time Operations	Delivery term of 1 to 24 hrs
	Real-Time Operations	Delivery term of 1 to 24 hrs
	Real Time Operations	Delivery term of 1 to 24 hrs
	Real-Time Operations	Delivery term of 1 to 24 hrs
	Real Time Operations	Delivery term of 1 to 24 hrs

Recommended for Approval:

\_\_\_\_\_  
Ray Camacho  
Power Management Executive

\_\_\_\_\_  
Date

This Delegation of Authority is effective on the date of the signature below, and shall remain in full force and effect until further amended, modified or revoked.

\_\_\_\_\_  
Jorge Carrasco, Superintendent

\_\_\_\_\_  
Date

## Exhibit D Approved Products and Markets

### MARKETER RESPONSIBILITIES

Marketers are responsible for transacting on behalf of City Light in compliance with the Policy and Procedures established by the ROC.

### MARKETS

Marketers may transact in the Western Electricity Coordinating Council markets at the following points of delivery:

- Mid Columbia (Mid-C)
- Points of Interconnection with the Bonneville Power Administration (BPA), Avista Utilities, Idaho Power, and Puget Sound Energy
- California - Oregon Border (COB)
- Nevada - Oregon Border (NOB)
- Palo Verde Switchyard (PV)

### MARKET SEGMENTS

The products listed in the next section are approved for marketing by authorized personnel under the terms and conditions indicated. The following defines the market segments referenced throughout this Exhibit.

- **Hour-ahead:** transactions entered into in the current hour for the next hour. This segment reports to the Director of Power Supply;
- **Day-ahead:** transactions entered into during the current day for the next day or any portion of the balance of the current month. After the 20<sup>th</sup> of the month, Day-ahead also includes transactions for the prompt month. This segment reports to the Director of Power Supply; and,
- **Forward:** transactions for the prompt month through 18 months into the future. For the purpose of determining compliance with this specific limit, the calculation of how many months forward is being transacted, will start with the transaction entry date. This segment reports to the Director of Resource Operations & Portfolio Management.

Hour-ahead and Day-ahead transactions are conducted over the phone and through electronic medium and do not require written confirmations. However, Forward transactions of 7 days or longer require written confirmations. Transactions for terms in excess of 18 months are subject to prior review and approval by the City Council.

For additional information on confirmations, please refer to Section I.

## PRODUCTS

The following table summarizes the authorized products for each trading segment.

<b>Product</b>	<b>Hour-ahead</b>	<b>Day-ahead</b>	<b>Forward</b>
Electrical Energy	Yes	Yes	Yes
Transmission Basis	Yes	Yes	AR
Transmission	Yes	Yes	Yes
Transmission Losses	No	No	Yes
Capacity	Yes	AR	AR
Swaption	No	AR	AR
Interruptible Physical Put	No	AR	AR
Energy Exchanges	Yes	AR	AR
Parking	No	AR	AR
Lending	NO	AR	AR
Scheduling Services	AR	AR	AR
Voltage Regulation	AR	AR	AR
Reactive Regulation	AR	AR	AR
Imbalance Regulation	AR	AR	AR
<b>AR = May trade, but approval required</b>			

Approval Required means approval from the head of trading for that market segment.

## COMMODITY ENERGY

This is the sale and purchase of wholesale electric energy with the following general attributes:

1. A fixed commodity quantity;
2. A defined commodity price; and,
3. A point of delivery within the allowed geographic boundaries as specified under Points of Transaction, above.

Acceptable variations to the general terms of energy transactions are:

1. Suspension of deliveries, but only as provided for under WSPP contract terms;
2. Changes or alterations of delivery points, but only as mutually agreed by the contracting parties.

### TRANSMISSION BASIS DEALS

This is the simultaneous purchase and sale of energy with **one or more counterparty** but at different points of delivery. Basis deals must net to zero energy. These deals will normally have two confirmations - one issued by SCL that reference SCL's deal ticket number, the other presumably will not. The marketer will be responsible for making sure that both confirmations reference the correct deal ticket number. The value of the basis deal will be the price differential between the buy and the sell however the price on the confirmation and deal ticket will be the buy and sell contract prices.

Acceptable variations to the general terms of the Basis transaction are:

1. Suspension of deliveries, but only as provided for under WSPP contract terms.
2. Changes or alterations of delivery points, but only as mutually agreed by the contracting parties.
3. If one counterparty is involved, the deal can be written with one confirmation using a modified standard WSPP Schedule C Exchange confirmation with advance permission from the Power Management Executive.

### TRANSMISSION

This is the sale or purchase of rights to transmission capacity. These transactions have a fixed capacity, a fixed price per unit of capacity, and fixed path.

Acceptable conditions of the Transmission transaction are:

- The transmission rights may be firm or non-firm as mutually agreed by the contracting parties.
- Transmission may be sold as a transmission resale (where SCL is involved in scheduling and tagging, and SCL pays all fees to the transmission provider) or as a transmission assignment (where SCL is not involved in scheduling and tagging. In accordance to the transmission provider's tariff, SCL may or may not pay all fees to the provider).

### TRANSMISSION LOSS PROVIDER

This is the provision by City Light of transmission losses for a counterparty in return for a fee plus payment for the energy required to meet the obligation. There is generally no limit on amount of energy, however, as a practical matter, the amounts are small.

**RESERVE**

Reserve transactions are the sale or purchase of capacity for a fee with the right to delivery of energy, up to the amount of the capacity reserved during the period covered by the contract.

The commodity price is either fixed or indexed to Mid-C, COB, or Palo Verde.

The point of delivery is fixed.

There are also two specific sub-categories of capacity differentiated by the noticed required for delivery of the energy:

Spinning Reserves: Capacity trades where the buyer may call for delivery of the commodity with 5 minutes notice;

Operating Reserves: Capacity trades where the buyer may call for delivery of the commodity with 15 minutes notice;

Acceptable terms and conditions of the Energy transaction are:

- Suspension of deliveries, but only as provided for under WSPP contract terms.
- Changes or alterations of delivery points, but only as mutually agreed by the contracting parties.

**CAPACITY**

This is the delivery of energy to a single counterparty where the buyer has the choice of determining the amount and timing of when the energy deliveries will be made. Maximum deliveries and receipts are set by contract.

Acceptable terms and conditions of this transaction are:

- Suspension of deliveries, but only as provided for under WSPP contract terms.
- Changes or alterations of delivery points, but only as mutually agreed by the contracting parties.

Acceptable variations to the general terms of this transaction are:

- Buyer may be restricted as to amounts of delivery and which hours may be chosen for deliveries and/or seller may be allowed some choices.
- May be combined with a basis or transmission deal

**SWAPTION**

This is the delivery and receipt of energy with a single counterparty during different hours of delivery and receipt on a single day. The buyer has the choice of determining the amounts and timing of when the energy deliveries and receipts will be made. Maximum deliveries and receipts are set by contract. Capacity trades must net to zero energy at the end of a negotiated time period (daily or weekly).

Acceptable terms and conditions of this transaction are:

- Suspension of deliveries, but only as provided for under WSPP contract terms.
- Changes or alterations of delivery points, but only as mutually agreed by the contracting parties.

Acceptable variations to the general terms of this transaction are:

- Buyer may be restricted as to amounts of delivery and which hours may be chosen for receipts and deliveries and/or seller may be allowed some choices for receipts.
- May be combined with a basis or transmission deal

**INTERRUPTIBLE PHYSICAL PUT**

This is the delivery to a single counterparty of energy where the seller has the choice of determining the amount and timing of when the energy deliveries will be made. Under certain conditions, the delivery may be interrupted. This product is sold in order to avoid buying reserves. Maximum deliveries and circumstances when interruptions are allowed are set by contract.

Acceptable terms and conditions of this transaction are:

- Suspension of deliveries, but only as provided for under WSPP contract terms.
- Changes or alterations of delivery points, but only as mutually agreed by the contracting parties.

Acceptable variations to the general terms of this transaction are:

- Seller may be restricted as to amounts of delivery and which hours may be chosen for deliveries and/or buyer may be allowed some choices.
- May be combined with a basis or transmission deal

## ENERGY EXCHANGE TRANSACTIONS

Exchanges are trades of energy with a single counterparty at two different points in time and possibly location. The implicit price is in terms of the ratio of quantity delivered to quantity received. Since the transaction is with a single counterparty, there should be only one contract or confirmation.

Acceptable conditions of the Exchange transaction are:

- Suspension of deliveries, but only as provided for under WSPP contract terms.
- Changes or alterations of delivery points, but only as mutually agreed by the contracting parties.

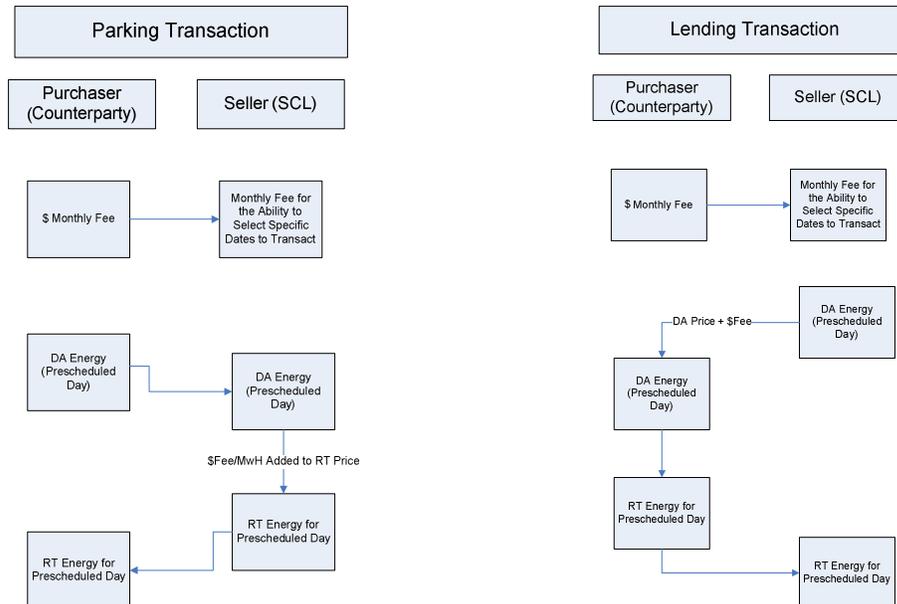
## PARKING

This is a transaction in which the purchaser delivers energy to the seller on a pre-scheduled basis according to WECC Preschedule Calendar. The seller of the service is then required to deliver a like amount of energy on a real-time basis on the pre-scheduled flow day(s) to parties or locations specified by the purchaser. The specific terms and conditions are as negotiated by the parties and must be in the form of a written contract.

## LENDING

This is a transaction in which the purchaser directs the seller to deliver energy to specific parties or locations on a preschedule basis according to WECC Preschedule Calendar. The purchaser then delivers a like amount of energy on real-time to the seller on the pre-scheduled flow day(s). The specific terms and conditions are as negotiated by the parties and must be in the form of a written contract..

## Parking & Lending Transactions



### NEW PRODUCTS

Before a new product is traded it must be approved by the ROC. The Power Management Executive will be responsible for developing and proposing new products. Proposals will be in writing and should clearly:

1. Describe the product;
2. How it will be traded;
3. What benefits it brings to City Light;
4. What risks it involves;
5. What changes, if any, it will require for settlement;
6. Whether this would require additions to the approved counterparty list; and,
7. Whether it would require changes to our trading support software and business processes or systems.

## Exhibit E Forward Hedging Strategy

### FRAMEWORK

The purpose of City Light's hedging strategy is to manage the utility's downside financial risk by entering into hedging transactions that improve its overall risk profile. According to the Risk Policy, the approved measurement of financial risk for hedging purposes is the 5% Tail Risk applied to the distribution of Cash from Operations.

With a predominantly hydro-electric based resource portfolio, SCL adheres to a conservative long-term planning process that utilizes only firm energy from those resources (the energy production resulting from worst-case flows). As a result, the utility is long a significant amount of power – between 10% and 70% of its native load, depending on hydro conditions – on an annual basis. Even under low flow conditions, City Light has surplus power in nearly every month of the year, and under normal hydro conditions it has significant surplus every month. Given this chronic surplus, it must be recognized that the predominant activity of SCL in the nearer term markets is to sell this surplus as the certainty of the amount of surplus improves.

As used here, forward hedging is defined as covering market tenors of 2 to 18 months into the future from the date of the transaction.

### STRATEGY

On an annual basis, prior to July 1, the Power Management Division will present to the ROC a hedging strategy for the upcoming calendar year. The strategy will contain two distinct Phases. Phase I deals with the initial identification of the forecast position, establishment of the 5% Tail Risk metric's initial limit (risk tolerance) and the execution of transactions necessary to keep City Light within the approved level of risk tolerance. Phase II and subsequent Phases will cover specific time periods for entering hedges enabling City Light to incorporate the increased certainty of hydro resources into its level of risk tolerance. For each Phase, the Power Management Executive will present to the ROC for approval, a written hedging plan in accordance to Policy.

### PHASE I – INITIAL PERIOD

City Light will run its forecasting models to develop a distribution of resources. This data, in addition to wholesale market prices and customer load forecasts will be input into the Cash From Operations Model. A distribution of cash from operations shall be created summarizing the potential range of outcomes resulting from these variations. Cash from Operations includes the following items:

SUBCOMPONENT	TYPE
Retail Power Revenue	Stochastic
Net Wholesale Revenue	Stochastic
Other Revenue	Fixed
Power O&M	Fixed
Other O&M	Fixed
Non-City Taxes	Fixed
Investment Income	Fixed
Other Income	Fixed
Debt Service	Fixed
City Taxes	Fixed
Bond Reserve Deposits	Fixed
Contingency Reserve Deposits (Withdrawals)	Fixed
Other Funds Required	Fixed
Cash from Operations	Sum

In this case "Fixed" means the model does not calculate a range of values. It is expected that these values will change from week to week, but they are not influenced by hedging activities (with the exception of some components of "Other Revenue") and the variations are small relative to the stochastic variables.

By the end of June, the PMD will identify the gross expected position for the following calendar and the initial energy position that optimizes the 5% Tail Risk value for the year. In order to set the initial level of risk tolerance, the PMD will analyze the 5% Tail Risk value at different levels of purchases and sales. The hypothetical transactions may be made in 25 aMW increments or may be shaped into monthly HLH (Heavy Load Hours) and LLH (Light Load Hours) quantities. This information will be presented to the ROC for the purpose of setting the Phase 1 level of risk tolerance as applied to the 5% Tail Risk metric. Hedging transactions that serve a defined goal that are within the established 5% Tail Risk limit will be executed according to a Hedging Plan developed by the PME and approved by the ROC, but in no event shall this period extend beyond December 31<sup>st</sup>. Throughout Phase 1, the financial metric will be re-assessed at least monthly. If at any time City Light's net forecast position exceeds the approved level of risk tolerance the current hedging plan will be adjusted accordingly.

**PHASE II AND SUBSEQUENT PHASES– HEDGING WITHIN THE YEAR**

Implementation of Phase II begins in January when Phase I activity has concluded. Throughout the year, the Cash From Operations model and the 5% Tail Risk metric will be updated at least monthly and evaluated. It is expected that the optimal 5% Tail Risk value will change as the amount of water supply for the runoff period becomes more certain and as forward wholesale prices change. As a result, these subsequent Phases are based on an evolving distribution of flow and market conditions and the specific Hedging Plans will incorporate this information. The value of the optimal 5% Tail Risk level will vary from week to week. In order to avoid a regular practice of having to move in and out of positions an optimal range will be set as part of each approved Hedging Plan. When the portfolio is within that range, no additional hedging transactions are needed – but neither are they prohibited.

**RISK LIMITS OVERRIDE RISK METRIC**

The following triggers, which are included in the Risk Policy, are designed to protect against being short within any given month and adherence to these limits expressly override the Hedging Strategy. The triggers are staged by quarter first and then month.

- The PMD will take corrective action if at any time there is a forecasted net combined system energy deficit at the 75% confidence for any future calendar quarter over the following 12 month period. The corrective action shall reduce said deficit to zero.
- At no time will the PMD enter a month carrying a net combined energy deficit of more than 50 average megawatts under expected conditions.
- Because of the possibility of price spikes, the PMD will not enter the months of July, August, September, November, or December carrying a deficit under expected conditions.
- The above limits stipulate actions the PMD must take, the PMD may recommend more aggressive action to the ROC if conditions warrant additional concern of being short.

## **Exhibit F Near-term Transaction Planning**

Near-term transaction planning covers real time out through the prompt month. The tool used for analysis is called STOMP (Short Term Operation and Marketing Plan), a model with daily granularity. STOMP uses the latest information available to modify the existing forecast, and if necessary, to take action. It also provides opportunity for what-if scenario plan analysis under different market, water, resource, and load conditions.

Historical data analysis shows a large volumetric volatility within months. There are many events that start or happen on a certain date. These could be changes in upriver operations or planned outages or transmission restrictions. Near-term analysis isolates the impacted period from the rest. Transacting decisions made based on this near-term analysis reduces the potential adverse effects of these events.

STOMP analyses is done at least once a week or as any noticeable changes are made to external forecast of flow or weather, and when City Light receives notification of changes in operation, energy delivery, or loads. These analyses are broken down to on-peak, off-peak, weekday, and weekends and holidays products. As a result the transacting decisions are made not only for a specific numbers of days, but also for a specific product.

### **REAL TIME OPERATIONS**

Daily & Balance of Month Operations prepare the Daily Marketing Strategy Instructions for Real-Time Operations on a daily basis. This instruction sheet includes price information in the daily, balance of month and forward markets. It provides an overview of the newly implemented contracts. Fishery/recreational constraints and special requests (from Boundary Relicensing, National Park Services, USGS, etc.) are also included on the sheet.

## Exhibit G Settlements

The Settlement process is a monthly activity that requires City Light and each of its wholesale counterparties to reach agreement on the quantity of energy that flowed and corresponding dollars to be billed each month. This function entails a scheduling system (ACES) download & mass Email to all Counterparties on the 1<sup>st</sup> of every month. Each Email contains quantity (MWh) and dollars bought & sold. The expectation is that the Counterparty will contact SCL settlements staff either via Email or by phone and confirm their system reads the same information or that there is agreement with the figures.

When agreement is not reached, both SCL and/or the Counterparty will provide daily and hourly transaction detail. This detail must be audited by both parties to determine where differences occur. This involves research of sources, including ACES (reading the TAG and notes associated with deal entry), the marketer's "Marketing Log" program, their "Transaction Log" (real time) or "Daily Log" (day-ahead), any handwritten notes the marketer's keep, and the marketer's themselves. Before changes are made to ACES, they must be approved by the Real Time Marketing Manager. Settlements staff may close discrepancies of up to \$200 on a monthly invoice.

Completed settlements are listed and tracked in a report known as the 'Checksheets'. This report is shared by both settlements & billing staff. Billing staff monitor the Checksheets for completed settlements and bill as soon as settlement is noted. Per the WSPPA, invoices must be received by the 10<sup>th</sup> of the month and payment the 20<sup>th</sup> (or 10 days after the billing date). Once billing is completed, this is also noted in the Checksheets.

The Lead Settlements Analyst is authorized to make limited corrections to existing transactions in authorized products with authorized counterparties or brokers, solely to correct errors or omissions. These modifications are only intended to:

- Be for the purposes of validation and settlement of existing transactions;
- Be limited to an amount set periodically by the Chief Financial Officer, but not to exceed \$50,000.00 without additional authorization;
- Be within risk limits established by the City Light ROC;
- Be consistent with all current City Light policies on credit, operating procedures and legal requirements.

Approval for modifications for amounts greater than \$50,000.00 shall be obtained from the Chief Financial Officer (CFO) or the CFO's designee.

This approval structure shall not limit Settlements personnel from consulting with Power Marketing personnel for discovery of data or to obtain explanatory information for purposes of reconciliation with counterparties.

## Exhibit H Credit Limits and Control

### QUALIFICATION REQUIREMENTS

Except under 'must sell' circumstances, City Light will only consider extending credit to counterparties that have two full years of audited financial statements (with an unqualified opinion) and a minimum net worth of \$2.5 million.

City Light may consider credit enhancements that meet the following criteria:

- Prepayment for the product or service;
- An acceptable irrevocable standby letter of credit from a creditworthy provider for the benefit of City Light;
- An acceptable payment guarantee from a parent company or other entity that has credit ratings of at least 'BBB' and/or 'Baa2' from S&P and Moody's, respectively, and no ratings below investment grade; or,
- Other credit enhancement deemed acceptable by the CFO.

An acceptable standby letter of credit is defined as an irrevocable standby letter of credit for the benefit of City Light from a United States office of a commercial bank or trust company organized under the laws of the United States of America or a political subdivision thereof or a foreign bank with a branch office located in the United States with at least an "A" credit rating from two or more major credit rating agencies.

If a payment guarantee is issued, the Guarantor must meet City Light credit qualification requirements and qualify for the amount of the credit guaranteed.

When a counterparty provides an acceptable payment guarantee, the credit limit set for the counterparty will be the **lower** of the guaranteed amount and the amount the guarantor qualifies for based on the ROD's credit scoring and evaluation.

When a counterparty provides an acceptable letter of credit, the credit limit available to the counterparty will be the **sum amount** of the letter of credit and the amount it would have qualified for based on the established evaluation methodology. In cases where an existing counterparty provides additional credit assurance in the form of an acceptable letter of credit, the amount of the letter of credit will be additive to the existing credit limit.

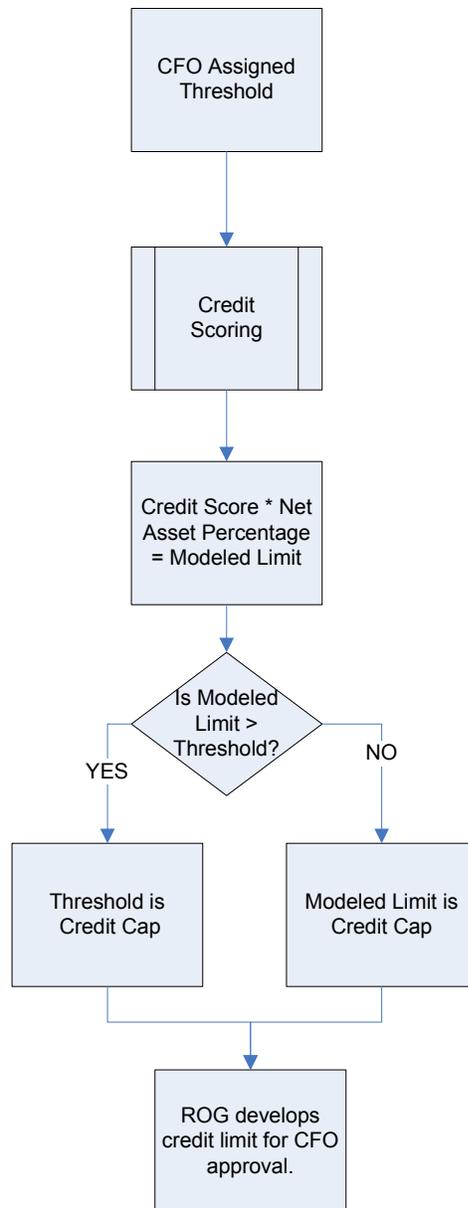
City Light may purchase energy from counterparties that do not have credit limits for the short term period defined as: same-day through balance of the month, provided

that the counterparty has not previously been disqualified via a credit qualification review. The ROC must approve longer term purchases from these types of counterparties.

### **CREDIT LIMIT ASSIGNMENT METHODOLOGY**

The credit extended to a counterparty will be based on Seattle City Light's credit scoring models that calculate a creditworthiness score subject to a Credit Threshold (cap) set by the Chief Financial Officer. The Credit Limit Threshold represents City Light's credit exposure tolerance limit.

The credit score is applied to a percentage of a counterparty's net worth (% set by counterparty type) to arrive at a modeled limit. The modeled credit limit is compared to the CFO-set credit threshold. The lower of the Credit Threshold and modeled credit limit is the maximum credit limit that the counterparty may be assigned. Below is an illustration of this methodology:



Once the modeled credit limit is calculated, qualitative factors, including those listed below, are considered in the Risk Oversight Division's decision to set the credit limit for recommendation to the CFO:

- Current counterparty news, trends, and events;
- Sudden changes in management and staff, including commodity traders;

- Changes in business risk as reported in the footnotes of the audited financial statements, including statements by management regarding risk management and internal controls, and legal contingencies;
- Reports and opinions of credit rating analysts (i.e., Moody's and S&P), independent certified public accountants, and executive management of the counterparty; and,
- The Risk Management Oversight Group's insight and knowledge of the counterparty gained through its working relationship with the counterparty, Power Marketing, and professional industry credit organizations.

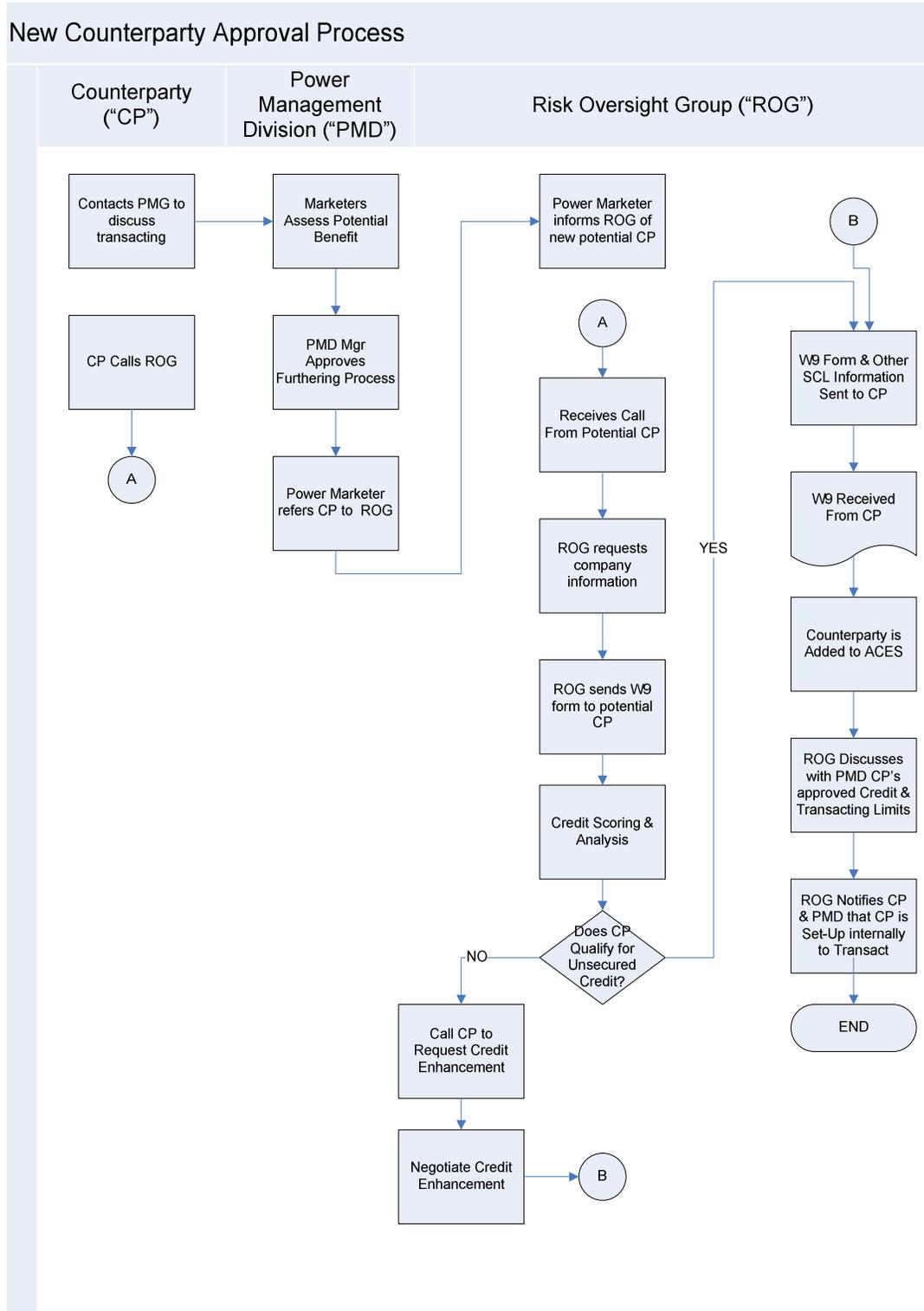
The credit-scoring models utilize the elements of a counterparty's tangible net worth, credit ratings from Standard & Poors (S&P) and Moody's Investors Service, and financial ratios calculated from the counterparty's recent audited financial statements. Eight financial ratios are utilized to evaluate the short-term (twelve month) liquidity, profitability and cash flow of the counterparty from the date of the audited financial statements. These financial ratios encompass the Current, Quick, Working Capital to Current Assets, Total Debt to Total Assets, Profit Margin, Return on Equity, Operating Cash Flow, and Operating Cash Flow to Current Liabilities.

#### **REMAINING AVAILABLE CREDIT**

The key metric used in determining remaining available credit ("RAC") that a counterparty has at any point in time is Settlement Exposure. This is computed as a rolling forward 60 day expected accounts receivable balance. This is a very realistic close approximation of actual amounts that will be payable to SCL in specific time periods. The Settlement Exposure value is deducted from the counterparty's approved credit limit to derive the RAC. In addition, the counterparty's Mark-to-Market Exposure will be monitored and used as an additional factor in deciding whether to enter into additional transactions at any point in time.

#### **NEW COUNTERPARTY APPROVAL PROCESS**

The establishment of new counterparties starts with the Power Management Division determining a benefit to be derived from adding the potential counterparty. The process of adding a new counterparty is illustrated below:



## **CREDIT MANAGEMENT PROCESS**

### **CREDIT LIMIT CHANGE MANAGEMENT**

A Counterparty's level of creditworthiness is not static and must be monitored and reassessed periodically. When it becomes necessary to change an existing counterparty's credit limit the Director of Risk Oversight or CFO will communicate by email or other writing, the exact change to the Senior Credit Analyst and Power Management Executive. The Senior Credit Analyst will notify the Power Marketers verbally and follow up with an email communication. ROD staff will be directed by the Senior Credit Analyst to make system changes as needed.

### **MONITORING**

The regular monitoring for credit quality of the counterparties is performed by the Credit Branch of the Risk Oversight Division. Such monitoring includes annual and periodic financial reviews of counterparties as documented through the 'Counterparty Credit Evaluation' summary. In order to assess the likelihood of a credit event, the Senior Credit Analyst's monitoring of counterparty credit quality includes daily monitoring of market events for all counterparties. Sources of monitoring information include external counterparty, analysts (including credit rating organizations), Securities Exchange Commission filings, counterparty websites and financial news web-sites. All proposed credit recommendations, including those that pertain to significant changes in the credit quality of a counterparty are brought to the attention of the Director of Risk Oversight for credit action.

Daily monitoring of remaining available credit ("RAC") and credit exposures is done by the Credit Risk Analyst, who also produces a weekly credit exposure report for the ROC. This summary report includes the current period Settlement Exposure and MtM exposure for each counterparty, the counterparty's credit rating, credit limit, and concentration of exposure by counterparty. The report flags counterparties with MtM exposure of \$1 million and above, and counterparties accounting for 10% or more of total credit exposure.

All active counterparties will be re-evaluated using the established process at least once in each twelve-month period.

### **CREDIT FILE MAINTENANCE**

Counterparty credit files are maintained by the Senior Credit Analyst. The credit file for each counterparty is to include prepared credit scoring and analysis, counterparty contact information, credit enhancements, and supporting information which may include audited financial statements, S&P and Moody's ratings, Dun & Bradstreet research reports, payment history, market moving news items, and correspondence with the counterparty. The Senior Credit Analyst maintains the 'Qualified Counterparty Credit Limit Summary' that summarizes each counterparty's credit information, such as current credit limit, last update, enhancements secured and date of expiration for monitoring.

**MARGIN MANAGEMENT**

City Light does not currently utilize Margin Agreements. As a result, any credit limit violation that is derived from MtM exposure will be considered passive.

**CREDIT VIOLATION**

A credit violation will be deemed to have occurred if a marketer, through negligence or intent, enters into a transaction with a counterparty that, at the time of the transaction, exceeds in value the remaining available credit for that counterparty. The Director of Risk Oversight will investigate and report findings to the ROC. The ROC will determine the appropriate action to take.

**DEFAULT**

Counterparty will be deemed to have defaulted if it has not

- a) Paid in full within 24 hours of payment due date, and
- b) Notified City Light of its intent to pay.

In the event of default, City Light will notify the counterparty in writing of the default and will suspend trading with the counterparty immediately.

**BANKRUPTCY**

City Light will cease all trading with a counterparty that declares bankruptcy or sooner if, bankruptcy is deemed possible. Further, the Chief Financial Officer or Director of Risk Oversight may suspend trading with any counterparty if there is sufficient uncertainty of the counterparty's creditworthiness. If City Light has exposure, either performance or credit, to the counterparty at the time of the declaration, The Chief Financial Officer will determine whether the City's Law Department will pursue the utility's interests and the maximum expense it will incur to prosecute the claim. In particular, the Chief Financial Officer will determine when, or if, the utility will surrender its claims in a bankruptcy to a third party.

**CREDIT CONDITION**

A credit condition will be deemed to have occurred if a counterparty exceeds its credit limit because

- Credit Limit reductions reduce the counterparty credit limit below the current exposure

**OR**

- changes in market prices increases the MtM value of outstanding contracts with the counterparty above the credit limit

If a credit condition occurs, the utility will immediately suspend all sales to the counterparty. If the excess exposure is less than \$1 million, no further action needs to be taken. If the excess exposure exceeds \$1 million the utility will attempt to take one or more of the following actions, at the discretion of the ROC:

- Unwind a sufficient value of deals with the counterparty to bring the exposure below the \$1 million threshold;
- Assign a sufficient value of deals to a third party to bring the exposure below the \$1 million threshold;
- Enter into a sufficient value of offsetting purchase deals with the counterparty to bring the exposure below the \$1 million threshold; or,
- Purchase a sufficient value of credit hedges to bring the exposure below the \$1 million threshold.

## Exhibit I General Control Processes

The following business processes are intended to minimize the likelihood of errors in the data stream supporting the transaction process.

### SEGREGATION OF DUTIES

City Light utilizes a Front, Middle, and Back Office energy risk management organizational structure.

#### FRONT OFFICE

The Front Office is comprised of the Power Management Division and a section of the Financial Division's Financial Modeling Group. This cross functional office is responsible for Hedging Strategy and Planning development, market analytics, hydrological forecasting, transaction entry, and Risk Metric model development, maintenance, and running.

#### MIDDLE OFFICE

The Risk Oversight Division is the Middle Office. It is responsible for assessing and discussing transaction risks with the Front Office prior to deal entry; risk and policy compliance reporting; confirming transactions; providing the official forward curve for transaction valuation and model input; end of day recap process; developing and improving business processes and controls throughout the transaction lifecycle; credit analysis and credit limit setting; negotiating credit terms and credit enhancements; leading efforts to continually improve City Light's energy risk management efforts.

To ensure adequate segregation of duties, no person acting in any capacity in the ROD shall be delegated the authority to transact on behalf of City Light.

#### BACK OFFICE

The Back Office is responsible for transaction settlements, billings, and confirmation record keeping. In addition, the Back Office provides information to the Power Accounting group for financial recording purposes. See Section H for more information on Settlements.

### PRE-DEAL ANALYSIS PROCESS

Prior to the entry of a forward transaction, Power Marketers will work with the Risk Oversight Division and their Section's manager to complete a Pre Deal Analysis Sheet. The purpose of this process is to ensure that deal assumptions are documented, ensuing risks and exposures are considered, the benefit of doing the deal is assessed and approved by management, and that sufficient information is

gathered and communicated to the Accounting Division to ensure proper accounting treatment. The following is the process:

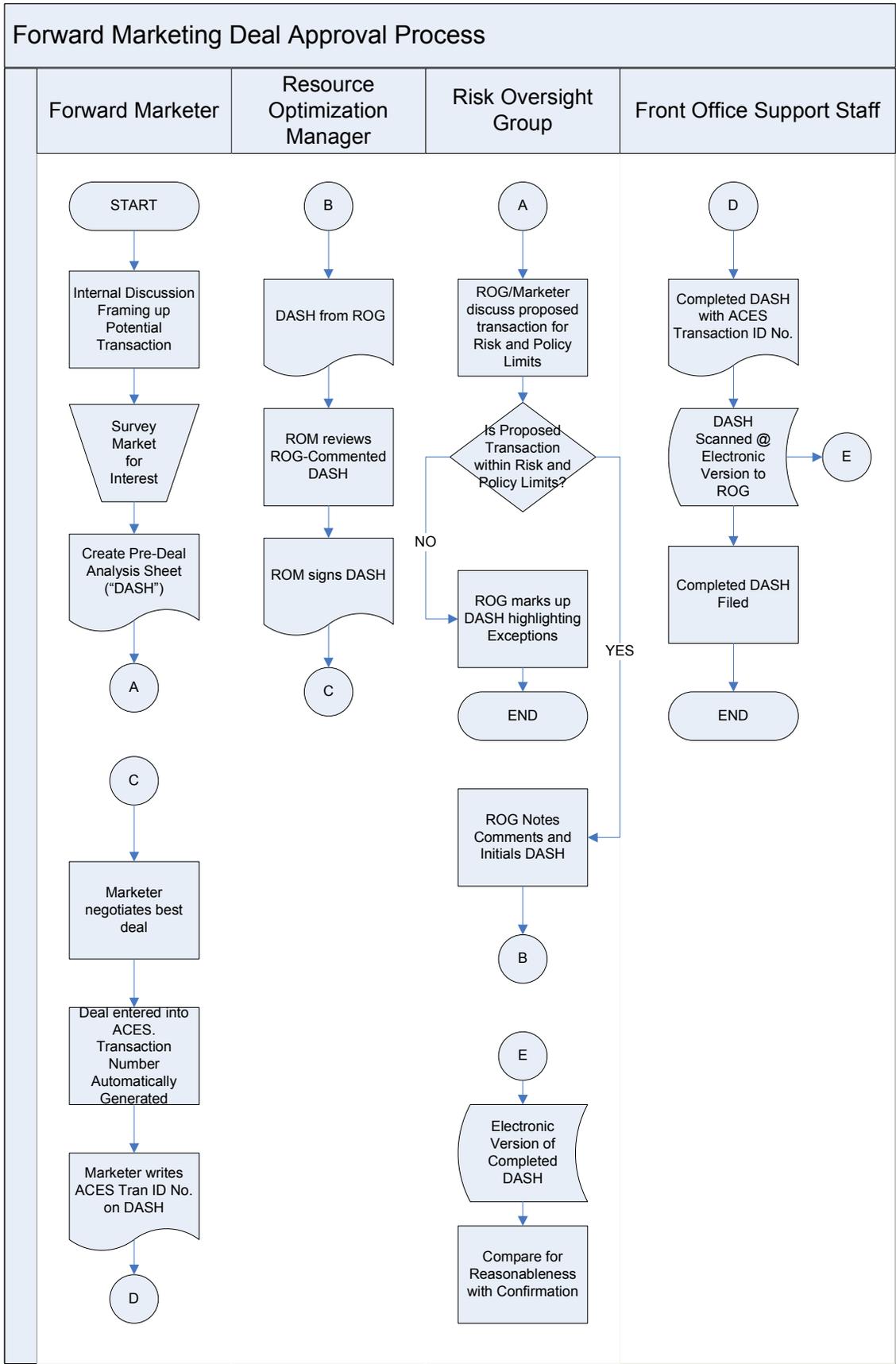
#### UNSTRUCTURED TRANSACTIONS (Standard Forward Purchase and Sales)

1. Trader discusses with his Manager the potential deal to build support/create awareness of the deal.
2. Trader surveys the market to generate a list of interested counterparties.
3. Trader creates a deal approval sheet that clearly describes the transaction. A potential list of counterparties determined from the effort of step 2 above, is also listed.
4. Trader meets with ROD to ensure Credit Exists for proposed counterparties, trade type is authorized, trade volume and price are within limits, purpose of trade is identified as being for retail load or wholesale marketing, intended benefits of doing the deal, transaction impact on existing hedging strategy.
5. ROD signs off on the deal approval sheet that the deal, as listed, is within established risk and policy framework. This is *only a vouch documenting oversight* that the listed terms are within the established limits. ROD sign-off should **not be considered deal approval** or an indication of a recommendation or encouragement for doing the deal. ROD sign-off should be viewed as part of a business process that is required by City Light prior to Resource Optimization Management deal approval.
6. Trader takes deal approval sheet to Resource Optimization Manager for signature indicating deal approval. This is the actual approval of the specific deal.
7. Trader calls counterparties on a recorded line to negotiate the best deal.
8. Trader enters the deal into ACES. Creating a Transaction Number.
9. Trader writes Transaction number onto deal approval sheet.
10. Front office staff creates electronic copy for Middle Office.
11. Front office maintains custody of hardcopy.
12. NOTE: Should a Forward Unstructured Transaction be entered into without going through this process, the transaction is still valid. However, it shall be considered an exception to the established procedure and discussed for resolution at the Risk Oversight Council.

#### STRUCTURED DEALS

1. Trader has initial talks with counterpart laying the groundwork.
2. Trader discusses with Manager to build support for the deal.
3. Trader firms up the deal with counterparty but does not execute. He ends the conversation with something like "This sounds good, I need to run it through my risk shop and I will call you back."
4. Trader creates a deal approval sheet.

5. Trader meets with ROD to ensure Credit Exists, trade type is authorized, trade volume and price are within limits, purpose of trade is identified as being for retail load or wholesale marketing, intended benefits of doing the deal, transaction impact on existing hedging strategy.
6. ROD signs off on the deal approval sheet that the deal as listed is within established risk and policy framework. This is only a vouch documenting oversight that listed terms are within the established limits and not deal approval *or* an indication of a recommendation or encouragement for doing the deal.
7. Trader takes deal approval sheet to Power Marketing Executive for signature deal approval. This is the actual approval of the specific deal.
8. Trader calls back the counterparty on a recorded line and executes the deal.
9. Trader enters the deal into ACES. Creating a Transaction Number.
10. Trader writes Transaction number onto deal approval sheet.
11. Front office staff creates electronic copy for Middle Office. .
12. Front office maintains custody of hardcopy.
13. NOTE: Should a Forward Structured Transaction be entered into without going through this process, the transaction is still valid. However, it shall be considered an exception to the established procedure and discussed for resolution at the Risk Oversight Council.



Pre-Deal Risk Assessment Sheet

ACES Transaction ID # \_\_\_\_\_

Target Date for Deal Entry

Transaction Type

Description of Transaction

Transaction Assumptions

Targeted Counterparties

Purpose of the Transaction (Check one)

<input type="checkbox"/> Sell Surplus Energy	<input type="checkbox"/> Purchase for Retail
<input type="checkbox"/> Transmission Sale	<input type="checkbox"/> Diversify Physical Position
<input type="checkbox"/> Move Position Intended for Retail	<input type="checkbox"/> Wholesale Marketing

Expected Benefit to Seattle City Light

How will this Transaction be valued prior to Delivery?

Is this Transaction part of a Hedging Plan?     YES     NO

CREDIT

What is the anticipated Settlement Exposure (60 Day Notional) of this Transaction?

RISK OVERSIGHT DIVISION COMMENT:

\_\_\_\_\_  
Pre-Deal Approval:

**Interim Manager, Resource Planning & Portfolio Management**

After the actual transaction is entered into the Power Marketer will record the ACES Transaction ID # on this form. The completed form will be scanned and sent to the Risk Oversight Division. Original copy to be held by the Power Management Division.

## **DEAL CAPTURE**

All market transactions are entered in the ACES scheduling and deal capture system (system of record) by the marketer executing the deal, and given a unique, sequential number automatically by the system. Day-ahead and forward deals must be entered into the system of record by 5:00 P.M. on the day the deal is executed. If for any reason this deadline is missed, the marketer will notify his/her director and the Director of Risk Oversight. The marketer will enter the deal at the earliest possible opportunity.

Any changes to the deal once entered are recorded by the system, producing an audit trail that includes the values before and after the change, the name of the person making the change, and the date and time of the change.

Real-time and day-ahead transactions cannot be modified after a predefined time period has elapsed except by the After-the-Fact accountants. At the end of each day the marketers and the director of each market segment perform a check out and reconciliation on transactions for the day to ensure that the system of record reflects the transactions executed during the day.

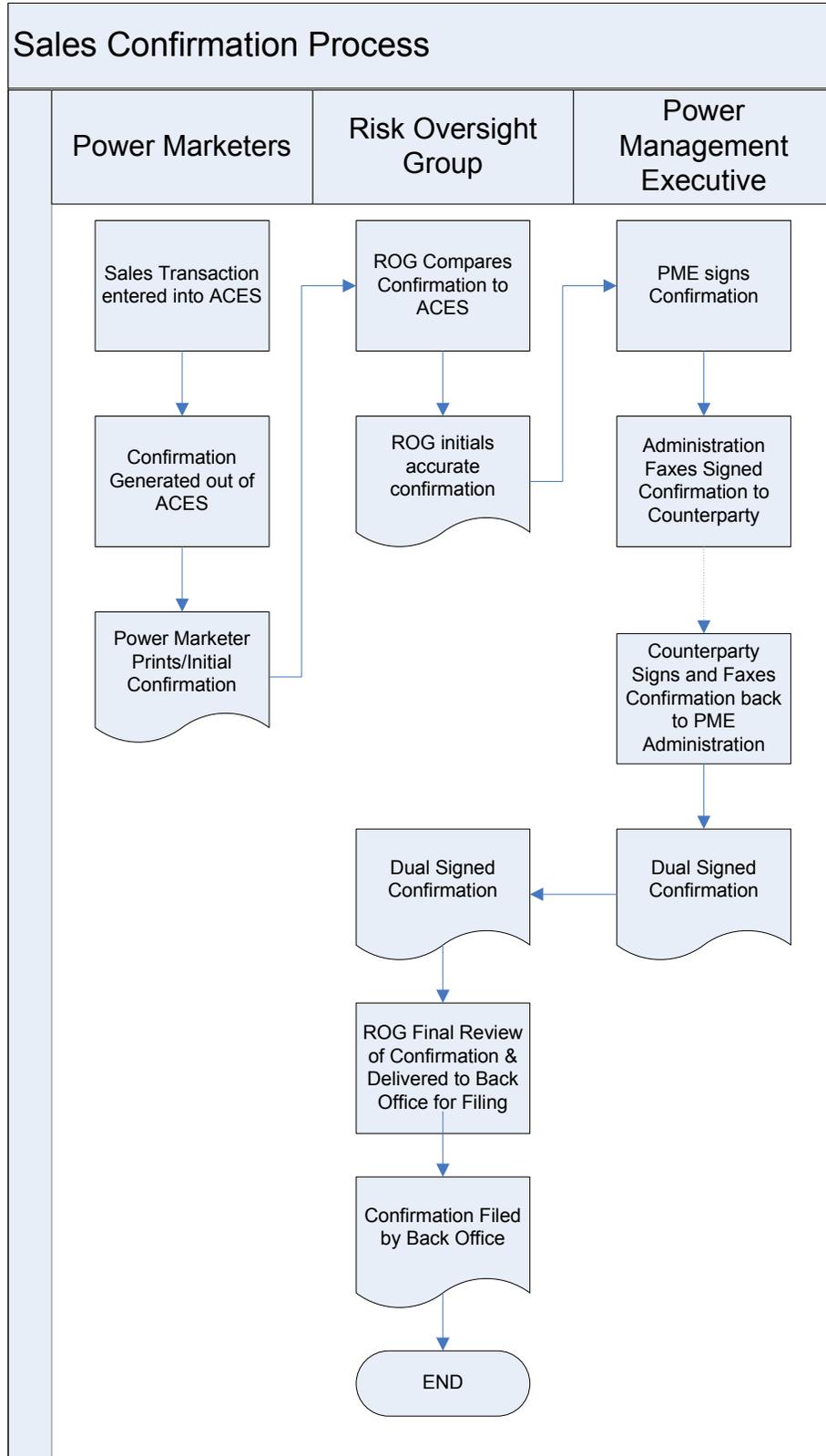
## **END OF DAY CLOSE OUT**

For each business day, the Risk Oversight Division will prepare a Deal Recap sheet for each Power Marketer that worked the Forward and Day Ahead desks. The Deal Recap sheet will contain a list of all transactions entered into by the marketer as contained in the official system of record. Each Power Marketer will review their Deal Recap Sheet for accuracy and completeness and sign the report when it accurately represents each transaction entered into for the given date. This process serves to provide assurance to the accuracy and completeness of the system of record for the Power Management Executive and the Director of Risk Oversight.

## **CONFIRMATIONS**

For transactions of tenor 7 days or longer: After the marketer initiates a sales transaction and enters it into the system (ACES), the system produces a contract confirmation for review and sign-off by the marketer. The marketer is responsible for delivering the confirmation to the Risk Oversight Division analyst within one business day of executing the transaction. The analyst reviews, validates, and logs the confirmation, and then passes it to the Power Management Executive for signature. The ROD analyst is responsible for delivering the confirmation for signature within two business days of receipt of it from the marketer. The PME is responsible for returned in the signed confirmation to the ROD analyst within 1 business day of receiving it. After signature it sent to the counterparty for review and signature. The ROD analyst is responsible for ensuring that it is sent to the counterparty within the timeframe dictated by the WSPP master agreement. Upon receipt of the signed confirmation from the counterparty the ROD analyst makes a final review and then

delivers it to the Back Office for filing. For purchase transactions the process is similar except City Light does not initiate the confirmation; the internal process begins with receipt of the confirmation by PME Administration, followed by Power Marketer review and initial and on through the process illustrated below.



### **PRICE CURVE CONTROL**

The Risk Oversight Division will provide electronic access to City Light's official price curves. These curves are independently prepared for internal analysis, valuation, and modeling tasks. Sufficient members of the Front, Middle, and Back Offices will have daily access to these curves. Periodic assessment of the accuracy and sufficiency of the price curves being provided will be made in order to enable future improvement in this area.

### **REPORTING TRANSACTIONAL DATA TO INDEX DEVELOPERS**

The Risk Oversight Division will provide data to specific index developers on behalf of City Light. The following information will be reported:

Pre-schedule trade data as follows:

- a. Trade date
- b. Energy flow start & end date
- c. HLH/LLH
- d. MWh
- e. Price
- f. HUB

Information comes from the Power Marketing transaction logs that are completed by the Real Time traders as they do deals. A macro has been built that pulls in this data.

### **TRAINING AND ACKNOWLEDGEMENT**

The Front, Middle, and Back Offices will conduct a joint training session annually covering the Risk Policy and this Risk Procedures Manual. In this training session representatives from each office will be selected to make presentations covering their area of expertise as it applies to the other Offices. Additional presentation topics may include City Light's IRP, 1937, and regulatory updates covering BPA, WECC, WSPP, and FERC. At the conclusion of this annual training, personnel will be required to sign an acknowledgement that they understand the Risk Policy and Procedures and will carry out their work assignments in accordance with them.